Final

Meeting Minutes
Travis Air Force Base
Environmental Management
Building 246, Downstairs Conference Room
Installation Restoration Program
Remedial Program Managers Meeting

16 May 2001, 0930 hours

Mr. Allen Brickeen, Travis Air Force Base (AFB), conducted the Remedial Program Managers (RPM) meeting held on 16 May 2001 at 0930 in Building 246, Downstairs Conference Room, Travis AFB, California. Attendees included:

• Allen Brickeen	Travis AFB
• Dale Malsberger	Travis AFB
• Wilford Day	Travis AFB
• Roger Johnson	Air Force Center for Environmental Excellence (AFCEE)
• John Lucey	U.S. Environmental Protection Agency (U.S. EPA)
• Elizabeth Allen	Tech Law
• Sarah Raker	San Francisco Regional Water Quality Control Board (RWQCB)
• Jose Salcedo	Department of Toxic Substance Control (DTSC)
• Daryl Greenway	CH2M HILL
• Loren Krook	CH2M HILL
• Deena Stanley	URS
• Robert Clayton	URS
• Mike Wray	GTI/IT

Handouts distributed throughout the meeting included:

• Attachment 1	Meeting Agenda
• Attachment 2	Master Meeting, Teleconference, and Document Schedule
• Attachment 3	Slides of the Conceptual Model at LF007 and Interceptor Trench
• Attachment 4	SBBGWTP Monthly Data Sheet, April 2001

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The 11 April 2001 meeting minutes were accepted as final with corrections.

B. Four-Month Calendar of Upcoming Milestones and Meeting Dates

The revised Travis AFB Master Meeting, Teleconference, and Document Schedule were distributed (see Attachment 2).

Master Meeting and Document Schedule

— Mr. Brickeen has assumed responsibility for all assignments previously assigned to Mr. Mark Sandy.

— Page 2, the North Groundwater Treatment Plant Rev.1, and the Central Groundwater Treatment Plant, Rev. 1 Operation and Maintenance (O&M) Manuals schedules were revised to “to be determined” (TBD).

— Page 3, the Natural Attenuation Assessment Work Plan (NAAW) for FT004/SD031 schedule was revised.

— Page 5, the Cypress Lake Golf Course Annex Removal Action Report schedule was updated to reflect actual dates of submission and revised.

— Page 5, for the DP039 Treatability Study Report, no comments were received from the agencies; therefore, the report will become final on 21 May 2001. Mr. Lucey stated that he submitted the report to the Cincinnati lab for review.

— Page 7, the Long-Term Operation (LTO) Strategic Plan and the Remedial Design/Remedial Action (RD/RA) Strategic Plan schedules were revised.

— Mr. Malsberger stated that a schedule will be developed for the Area C Remedial Design at LF007, once the contract is awarded. The schedule will be accelerated in order to complete the design this year. (The restoration advisory board [RAB] requested that this off-base plume be

2. OPERABLE UNIT UPDATE

A. North/East/West/ Industrial Operable Unit

1. Landfill Cap Design

Mr. Dale Malsberger stated that the draft design was submitted.

Travis AFB has looked at four different ways to ensure the 5-foot separation between the water table and the excavated contaminated soil that is consolidated into the CAMU:

- Drainage layer under the entire CAMU;
- A liner under the CAMU;
- An interceptor trench located at the upgradient edge of the CAMU; and
- Use of additional soil to raise the subgrade of the CAMU.

Travis AFB concluded that the best option would be install an interceptor trench at the eastern edge of the CAMU to ensure the 5-foot separation.

Ms. Deena Stanley gave a presentation on the LF007 Conceptual Model and interceptor trench. (See Attachment 3). Highlights are as follows:

- USGS Map – The map depicts the regional geology of Travis AFB and the surrounding area. Travis AFB is located on the eastern edge of the Fairfield groundwater basin; LF007 is located in an area of near surface and exposed bedrock that is the eastern boundary of the Fairfield basin. The bedrock ridge trends from northwest to southeast with another bedrock ridge to the west defining a small alluvial valley in which LF007 is located.
- Surface Topography - Two surface topography figures presented by Ms. Stanley show the existing surface features. The first shows

- Cross sections - Two figures showing an east-west cross section and a north-south cross section through the CAMU. On each figure, the same section is shown before and after construction of the subgrade and trench. The effect of the trench on the water table is shown on the downgradient (west) side of the trench. For the figures, the bottom of the trench elevation was at 68 feet mean sea level (msl) but the actual specifications of the trench will be calculated after the conceptual approach for the location of the trench is agreed to. The water table from February 2001 was used for the figures; as shown on both cross sections, the top of the subgrade is more than 5 feet above the water table. The east-west cross section also shows the thin alluvium east of the CAMU, on the edge of the groundwater basin.

- Water Table Elevation Maps - Two color-coded elevation maps of the water table elevation before and after the trench show the effect of the trench in lowering the water table beneath the CAMU. The area of highest groundwater elevation corresponds to the eastern edge of the area of the CAMU. The figures coupled with the cross sections and the regional geology map also illustrate that the recharge area contributing to the area beneath the CAMU is limited by the bedrock ridge just east of the trench. The area contributing recharge/inflow to the area beneath the CAMU is potentially from the north and east. However, the groundwater contours from February 2001 (and from the past several years (1994-2001)) show a source area (groundwater mound) beneath and to the east of the CAMU; thus the recharge is limited to the small area east of the CAMU and west of the bedrock ridge.

- Distance From Top of Subgrade to Top of Post-Construction Water Level - Colored contours of the soil material thickness between the top of the subgrade and the water table with the trench in place are shown. The consolidated soil from the soil sites will be placed on top of the subgrade. Thus the top of the subgrade elevation will be the bottom elevation of the consolidated soil. Using the February 2001 water level data to illustrate the effect of the trench on the water table west of the trench, the thickness would be greater than 5 feet beneath the CAMU. The figure also

The cumulative effect of using conservative assumptions in the modeling and design coupled with the engineered control required by the Regional Water Quality Control Board ensures that the minimum separation of 5 feet between the consolidated soil and the water table will be met.

- Hydrographs – Two sets of hydrographs for monitoring wells located within the CAMU and surrounding the CAMU also include precipitation data. The pattern of the rainfall and the water levels mimic each other, showing the importance of rainfall as the main source of recharge. Once the CAMU is capped, the amount of infiltration/recharge will be less than one inch (according to the Hydrus modeling) and the trench will prevent recharge from the east, thus the water levels beneath the CAMU will decrease and the 5-foot separation requirement will be met.

Mr. Malsberger commented that the Air Force is working on the preliminary response to agency comments on the draft LF007 Design Report. The agencies agreed to have the design report as a stand-alone document.

Ms. Raker asked what is the approximate schedule for the design in the next six months. Mr. Malsberger stated that hopefully the design will be finalized within the next six months.

Ms. Raker proposed having the 5-foot separation discussion submitted as a separate document. This and the schedule will be discussed after the RPM meeting.

2. CAMU Acceptance Level Technical Memorandum

Mr. Malsberger stated that the proposed language as to what will be done if VOCs were found has been developed and reviewed by the agencies. Mr. Salcedo has stated that he reviewed the language at the RAB meeting and deemed it appropriate. Mr. Salcedo also stated that he has had discussions with U.S. EPA as to where the dilution attenuation factor (DAF)-20 was used such as when there is more than a 10-foot separation.

Mr. Malsberger stated that the Soil RD/RA plan will have the sampling strategy for the excavated soil.

Mr. Malsberger stated that a conference call was conducted addressing U.S. EPA's comments. Once the DAF-20 issue is addressed, Travis AFB will develop the response to comments.

Ms. Raker requested a copy of the tables prior to the RPM teleconference.

B. West/Annexes/Basewide Operable Unit

1. Vernal Pool Mitigation Report

A copy of the Vernal Pool Mitigation Report was mailed by Glenn Anderson to the agencies. This report supports the Air Force position that land use restrictions are appropriate for Landfill X.

Mr. Lucey stated that his agency is waiting for a copy of the response from U.S. Fish and Wildlife.

2. Ecological Technical Memorandum

Mr. Brickeen stated that the Ecological Technical Memorandum was submitted on 10 May 2001. The agencies are currently reviewing the document. Mr. Salcedo stated that the memo appears to answer the question. Mr. Lucey stated that Saunce said that the technical memorandum looks pretty good.

3. CURRENT PROJECTS

A. Groundwater Sampling and Analysis Program

Mr. Brickeen stated that Travis AFB is midway in conducting the 2001 Groundwater Sampling and Analysis Program (GSAP). The agencies were requested to submit their comments on the sampling plan.

B. South Base Boundary Treatment Plant

Mr. Brickeen reported that the South Base Boundary Groundwater Treatment

The U.S. Army Corps of Engineers will be meeting the Peterson's attorney with anticipation of resolution by June 2001. This will enable the Air Force to have access by July 2001 to begin installation of the off-base extraction wells for FT005.

1. Sequestering Agent

Ms. Raker stated that she requested that the interim record of decision (IROD) be modified to include substantive requirements or apply for an NPDES permit. Since the Air Force cannot apply for the permit, the recommendation is to modify the O&M manuals to include all the substantive requirements. The purpose of the modification is to allow more extraction wells to be added to the system extraction wells removed from the system, new sources added, or if treatment will be modified by adding chemicals. The O&M manuals will be the place for the Water Board to approve these types of changes that would normally go under changes to the NPDES permit.

Ms. Raker stated that the Air Force has come back with a proposal to modify the O&M manuals with the substantive requirements, then the Water Board will approve the changes as they are made. However, the Water Board has asked for a description of the legal interpretation of the enforceability of the O&M manual under the IROD or the Federal Facility Agreement (FFA).

Mr. Brickeen suggested that the Water Board give the Air Force samples of the language that they are requesting. Mr. Brickeen stated that the Air Force considers the O&M manual to be the implementation mechanism of the IROD.

Ms. Raker asked if Mr. Brickeen would put in writing that the O&M manual is enforceable under the IROD. Mr. Brickeen stated that he did.

Ms. Raker stated that the email conveyed that the substantive requirements specified in the O&M manual fill the requirements agreed to in the IROD. Mr. Brickeen stated, "correct".

Mr. Lucey stated that he thinks the IROD has a list and discussion of what are primary documents. The RD/RA work plan is spelled out as a primary

Travis AFB has not done this without the prior approval of the Water Board.

Ms. Raker stated that although, that is correct, if Travis AFB were to discharge chemicals to the creek, they would be in violation of a law that states chemicals cannot be discharged into the creek. Mr. Brickeen agreed.

In absence of an NDPES permit, the Water Board is attempting to have an enforceable document that states Travis AFB will not discharge chemicals into the creek. Mr. Brickeen stated that the IROD states this within the applicable or relevant and appropriate requirements (ARARs). Ms. Raker stated that the IROD does not address adding additional chemicals, which requires approval.

Mr. Malsberger stated that a possible solution would be for the Water Board to say what can and cannot be done without changing the O&M manual and without getting approval from the agencies.

Ms. Raker stated that even with the assumption that the O&M manual is the governing document, there needs to be a connection between the O&M manual and the IROD. Ms. Raker asked if Travis AFB could put in writing how the O&M manual fits within the governing documents and the IROD.

Mr. Malsberger suggested using language such that the O&M manual is a primary document per the FFA and lists the issues/actions that require formal changes and agencies approval.

Ms. Raker agreed. Mr. Brickeen stated that he will review this issue.

C. Central Groundwater Treatment Plant

The Central Groundwater Treatment Plant (CGWTP) performed at 99.7% uptime with approximately 3.8 million gallons of water extracted and treated. The average flow for the CGWTP was 88.0 gpm for the month. Approximately 21 pounds of VOCs were treated during March 2001. The total mass of VOCs removed since startup of the system is 1,068 pounds (see Attachment 5).

D. North Groundwater Treatment Plant

The North Groundwater Treatment Plant (NGWTP) performed at 96.9% uptime. From 1 April to 30 April 2001, approximately 12.2 pounds of VOCs were removed. Approximately 1.2 million gallons of water were extracted and treated. The average flow for the NGWTP was 29.9 gpm for the month of April. The total mass of VOCs removed since startup of the system is 83.0 pounds (see Attachment 6).

4. PROGRAM ISSUES UPDATE

A. Clean Water Act Supreme Court Ruling

Mr. Brickeen stated that Mr. Salcedo informed him that the DTSC attorneys were coordinating their response with U.S. EPA. A letter is forthcoming.

The bottom line is that the Air Force disagrees with the agencies' position. However, any wetlands that are lost will be mitigated.

B. LTO and RD/RA Strategic Plan

The draft LTO and RD/RA Strategic Plans will be issued on 25 May 2001.

C. Budget Update

Mr. Brickeen reported that AMC headquarters will fund all scheduled actions in the strategic plans.

D. Field Activity Reports

Mr. Brickeen distributed the field activity reports from CH2M HILL and GTI (see Attachments 7 and 8).

E. Other

- Mr. Lucey stated that he would like to review the DP039 from a holistic standpoint; the status of all the treatability studies, performance monitoring, plume stabilization, and capture. Although this information will be included in the GSAP report, it would be proactive to discuss these issues in detail before moving on to SS016. Mr. Lucey requested that this

Mr. Lucey said that is not an adequate approach. There should be an emphasis on performance monitoring in attempting to evaluate the effectiveness of the systems that are in place.

Mr. Malsberger stated that a treatability study will be conducted by AFCEE. From a basewide prospective, Travis AFB should evaluate how those studies interact with each other.

Mr. Brickeen stated that one thing to keep in mind is the approach that was presented in the LTO Strategic Plan regarding zones rather than sites. DP039 may not be appropriate to separate out since it is close to merging with the WIOU plume.

Ms. Raker suggested that this issue be revisited in September 2001, when the status of the treatability studies will be available.

- **Present Value Analysis**

  Mr. Brickeen distributed a handout titled Present Value Analysis - A Guide to Developing and Documenting Cost Estimates During the Feasibility Study (see Attachment 9). Present value analysis is a method to evaluate expenditures, either capital or O&M, which occur over different time periods. This standard methodology allows for cost comparisons of different remedial alternatives on the basis of a single cost figure for each alternative. This single number, referred to as the present value, is the amount needed to be set aside at the initial point in time to assure that funds will be available in the future as they are needed, assuming certain economic conditions.

  Mr. Brickeen also distributed handouts that depict examples of the present value analysis (see Attachment 10).

ACTION ITEM LIST
(Action Item Closed)

AGENDA	RESPONSIBLE	ACTION ITEM	DUE DATE	STATUS
1.	Air Force	To provide to the U.S. EPA the correspondence that took place between the Air Force and U.S. Fish and Wildlife concerning the mitigation report.	Open	Completed. **Item Closed.**
2.	Agencies	To identify the stakeholders for RW013.	Open	Completed. **Item Closed**

ACTION ITEM LIST
(Action Item Opened)

as of 16 May

AGENDA	RESPONSIBLE	ACTION ITEM	DUE DATE	STATUS
1.	DTSC	To submit "no comment" letters on the treatment Plant Performance Monitoring Recommendations, WIOU NAAW, CAMU soil acceptance level technical memorandum, groundwater protection technical memorandum, ST032 technical memorandum.	1/11/01	Pending
2.	RWQCB	To follow up on the letter from the Air Force in response to the notice of violation.	Open	Pending the final review of the O&M manual.
3.	Agencies	To look at DAF-20 numbers to ensure that they will be protective of groundwater at the CAMU.	Open	Ms. Raker sent an email to Mr. Malsberger. Pending comments from Mr. Lucey.
4.	Air Force	Develop schedule for the cap design.	05/30/01	New item.